

Advisory Council for Clean Air Compliance Analysis

Special Council Panel for the Review

of the Third 812 Analysis

FY 2004 Member Biosketches

Allen, David T.

University of Texas

Dr. David Allen is the Gertz Professor of Chemical Engineering and the Director of the Center for Energy and Environmental Resources at the University of Texas at Austin. His research interests lie in environmental reaction engineering, particularly issues related to air quality and pollution prevention. He is the author of four books and over 125 papers in these areas. The quality of his research has been recognized by the National Science Foundation (through the Presidential Young Investigator Award), the AT&T Foundation (through an Industrial Ecology Fellowship) and the American Institute of Chemical Engineers (through the Cecil Award for contributions to environmental engineering). Dr. Allen was a lead investigator in one of the largest and most successful air quality studies ever undertaken: the Texas Air Quality Study. His current research is focused on using the results from that study to provide a sound scientific basis for air quality management in Texas. In addition, Dr. Allen is actively involved in developing Green Engineering educational materials for the chemical engineering curriculum. His most recent effort is a textbook on design of chemical processes and products, jointly developed with the U.S. EPA. Dr. Allen received his B.S. degree in Chemical Engineering, with distinction, from Cornell University in 1979. His M.S. and Ph.D. degrees in Chemical Engineering were awarded by the California Institute of Technology in 1981 and 1983. He has held visiting faculty appointments at the California Institute of Technology, the University of California, Santa Barbara, and the Department of Energy.

Cameron, Trudy Ann Chair

University of Oregon

Trudy Ann Cameron is the Raymond F. Mikesell Professor of Environmental and Resource Economics at the University of Oregon. She holds a Ph.D. in Economics from Princeton University (*82), and was a member of the faculty in Economics at UCLA for seventeen years before moving to UO in January of 2002. She has served as a member of the board of directors, as well as vice-president, of the Association of Environmental and Resource Economics, and as an associate editor for the Journal of Environmental Economics and Management and the American Journal of Agricultural Economics. For the EPA's Science Advisory Board, she has served on the Environmental Economics Advisory Committee and the Economics and Assessment Working Group of the Children's Health Protection Advisory Committee, and she now chairs the Advisory Council for Clean Air Compliance Analysis. Dr. Cameron's research concentrates on the methodology of non-market resource valuation, with special emphasis on econometric techniques for the analysis of stated preference survey data. Her recent projects have included a study of popular support (i.e. willingness to pay) for climate change mitigation programs (funded by the National Science Foundation). A current project, begun at UCLA with former colleague JR DeShazo, uses stated preference survey methods to elicit household choices that reveal willingness to pay to avoid illness, injury, and death. The "value of a statistical life" is a key ingredient in the benefit-cost analysis of many environmental, health, and safety regulations, and this project seeks to more clearly identify how the context of such choices influences the public's willingness to pay for such policies.

Chestnut, Lauraine

Stratus Consulting Inc

Lauraine G. Chestnut, a manager at Stratus Consulting, Inc., is an economist who specializes in the quantification and monetary valuation of human health and environmental effects associated with air pollutants. She has 20 years of experience with Stratus Consulting and its predecessors working for clients including the U.S. Environmental Protection Agency, California Air Resources Board, Environment Canada, World Bank, and Asian Development Bank, quantifying the damages of air pollution, including human health effects, visibility aesthetics, materials damages, and crop damage. She has conducted original economic and survey research to estimate the value to the public of protecting human health and visibility aesthetics from the effects of air pollution. She has developed quantification models to estimate the health benefits of reductions in air pollutants that have been used to assess the benefits of provisions of the Clean Air Act in the U.S., proposed Canadian air quality standards, air quality standards in Bangkok, and elsewhere. Ms. Chestnut has published articles related to this work in Land Economics, Environmental Research, Journal of the Air and Waste Management Association, and Journal of Policy Analysis and Management, and as chapters in the following titled books: Valuing Cultural Heritage, Air Pollution and Health, and Air Pollution's Toll on Forests and Crops. Ms. Chestnut managed an epidemiology and economic study of the health effects of particulate air pollution in Bangkok, working closely with the Thai Pollution Control Department, the School of Public Health at Chulalongkorn University, and the World Bank. Ms. Chestnut co-authored publications on the Bangkok studies in the Journal of the Air and Waste Management Association, Environmental Health Perspectives, American Journal of Agricultural Economics, Journal of Exposure Analysis and Environmental Epidemiology. Ms. Chestnut received a B.A. in economics from Earlham College, Richmond, Indiana, in 1975, and an M.A. in economics from the University of Colorado, Boulder, in 1981. She is a member of the Association of Environmental and Resource Economists and of the Air and Waste Management Association.

Evans, John

Harvard University

Dr. Evans is Senior Lecturer in Environmental Science at Harvard School of Public Health, where he serves as co-director of the Program in Environmental Science and Risk Management. He holds a B.S.E. (Industrial Engineering) and a M.S. (Water Resources Management) from the University of Michigan and earned his S.M. and Sc.D. in Environmental Health Sciences at Harvard. Dr. Evans has worked in the field of risk analysis for over twenty years and has emphasized the importance of characterizing uncertainty in estimates of health risks in his research. He has experience in uncertainty analysis and has conducted several studies using formally elicited expert judgment to describe uncertainty in environmental health risks. His recent work has examined the role of decision and value of information analysis in setting priorities for environmental research. Dr. Evans has been a member of the Society for Risk Analysis since it was founded; has served as the Chair of the New England Chapter, and as both a member of the Editorial Board of the SRA's journal Risk Analysis and as an area editor of Risk Analysis. He was a member of the NAS Committee on Estimating the Health Benefits of Air Pollution Regulations and also served on the EPA Science Advisory Board (Drinking Water Committee). Dr. Evans' current research funding comes largely (over 90%) from the Government of Kuwait. In the past his work has been funded by a number of sources, including the US EPA Office for Research and Development, the Mexican Government (through subcontracts with MIT), several corporations and individuals (through contracts with and/or gifts to the Harvard Center for Risk Analysis), Health Canada, and the US Nuclear Regulatory Commission.

Goulder, Lawrence

Stanford University

Dr. Lawrence H. Goulder is the Shuzo Nishihara Professor in Environmental and Resource Economics at Stanford University. He is also a Senior Fellow of Stanford's Institute for International Studies and Institute for Economic Policy Research, a Research Associate at the National Bureau of Economic Research, and a University Fellow of Resources for the Future. He is a member of the EPA's Science Advisory Board's Environmental Economics Advisory Committee. Dr. Goulder's research examines the environmental and economic impacts of U.S. and international environmental policies. He has focused on policies to reduce emissions of "greenhouse gases" that contribute to climate change, and on "green tax reform," revamping the tax system to introduce taxes on pollution and reduce taxes on labor effort or investment. His analyses of environmental policies often employ a general equilibrium analytical framework that integrates the economy and the environment and links the activities of government, industry, and households. His work considers both the aggregate benefits and costs of various policies as well as the distribution of policy impacts across industries, income groups, and generations. Some of his work is interdisciplinary, involving collaborations with climatologists and biologists. Dr. Goulder graduated from Harvard College with an A.B. in philosophy in 1973. He obtained a master's degree in musical composition from the Ecole Normale de Musique de Paris in 1975 and earned a Ph.D. in economics from Stanford in 1982 (12/2003).

Hammitt, James

Harvard University

James K. Hammitt is Professor of Economics and Decision Sciences and Director of the Harvard Center for Risk Analysis. He holds appointments in the Department of Health Policy and Management and the Department of Environmental Health and is co-director of the Program in Environmental Science and Risk Management at the Harvard School of Public Health. His research interests include the development and application of quantitative methods of decision and risk analysis to health and environmental policy. Professor Hammitt studies the management of long-term environmental issues with important scientific uncertainties such as global climate change and stratospheric-ozone depletion, the evaluation of ancillary benefits and countervailing risks associated with risk-control measures, and the characterization of social preferences over health and environmental risks using revealed-preference and contingent-valuation methods. He holds degrees in Applied Mathematics (A.B., Sc.M.) and Public Policy (M.P.P., Ph.D.) from Harvard University. He serves as a member of the U.S. Environmental Protection Agency's Advisory Council on Clear Air Compliance Analysis and served on the American Statistical Association Committee on Energy Statistics (Advisory Committee to the U.S. Energy Information Administration). Professor Hammitt is a member of the American Economic Association, Association of Environmental and Resource Economists, European Group of Risk and Insurance Economists (Geneva Association), and the Society for Risk Analysis. Prior to coming to Harvard, he was Senior Mathematician at the RAND Corporation in Santa Monica.

Hattis, Dale

Clark University

Dale Hattis is Research Professor with the Center for Technology Environment and Development (CENTED) of the George Perkins Marsh Institute at Clark University. For the past twenty-nine years he has been engaged in the development and application of methodology to assess the health, ecological and economic impacts of regulatory actions. His work has focused on the development of methodology to incorporate interindividual variability data and quantitative mechanistic information into risk assessments for both cancer and non-cancer endpoints. An important focus in recent years has been on age-related differences in pharmacokinetic processes and susceptibility for carcinogenesis. Specific quantitative risk assessment studies have included hearing disability in relation to noise exposure, renal effects of cadmium, reproductive effects of ethoxyethanol, neurological effects of methyl mercury and acrylamide, chronic lung function impairment from coal dust, four pharmacokinetic-based risk assessments for carcinogens (for perchloroethylene ethylene oxide butadiene and diesel particulates), an analysis of uncertainties in pharmacokinetic modeling for perchloroethylene and an analysis of differences among species in processes related to carcinogenesis. He has recently been reappointed as a member of the Environmental Health Committee of the EPA Science Advisory Board and for several years he has served as a member of the Food Quality Protection Act Science Review Board. In the recent past he has served as a member of the National Research Council Committee on Estimating the Health-Risk-Reduction Benefits of Proposed Air Pollution Regulations. Current major sources of research support include the Department of Energy and the U.S. Environmental Protection Agency. He has been a councilor and is a Fellow of the Society for Risk Analysis and serves on the editorial board of its journal Risk Analysis. He holds a Ph.D. in Genetics from Stanford University and a B.A. in biochemistry from the University of California at Berkeley.

Johnson, F. Reed

Research Triangle Institute

Dr. F. Reed Johnson is Principal Economist at Research Triangle Institute. He was recently named as one of the first four RTI Fellows. He has served on the economics faculties of Illinois State University, Simon Fraser University, the Stockholm School of Economics, the University of Stockholm, Linköping University, and the U.S. Naval Academy. He currently is Adjunct Professor of Public Policy at the University of North Carolina at Chapel Hill. He is also a member of RTI's Scientific Advisory Council. From 1994 to 2001 he was Vice President for Research and Development at Triangle Economic Research. He previously worked as an economist in the Office of Policy Analysis, U.S. Department of the Interior, and in the Office of Policy, Planning, and Evaluation, U.S. Environmental Protection Agency. Dr. Johnson received his B.A. degree in economics from Occidental College in 1970 and his Ph.D. degree in economics from the State University of New York, Stony Brook in 1974. He has been awarded a Brookings Economic Policy Fellowship and two Fulbright-Hayes scholarships to Sweden. As a staff member in the U.S. Environmental Protection Agency's environmental economics research program during the 1980s, Dr. Johnson helped pioneer development of basic nonmarket valuation techniques. These techniques are now widely used for benefit-cost analysis in health and environmental economics. He has designed and analyzed numerous surveys for measuring willingness to pay for health-risk reduction and improved environmental quality. His current research includes developing improved conjoint analysis methods for quantifying patient and physician preferences for health-care interventions and health risks.

Kolstad, Charles

University of California

Charles Kolstad is the Donald Bren Professor of Environmental Economics and Policy at the University of California, Santa Barbara, where he is jointly appointed in the Department of Economics and the Bren School of Environmental Science and Management. Most of Prof. Kolstad's research has been in the area of regulation, particularly environmental regulation. Recently, he has also done work in environmental valuation theory. He is particularly interested in the role of information in environmental decision-making and regulation. Currently he has a major research project on the role of uncertainty and learning in controlling the precursors of climate change. His past work in energy markets has focused on coal and electricity markets, including the effect of air pollution regulation on these markets. Prof. Kolstad is the editor of *Resource and Energy Economics*, has been an Associate Editor of the *Journal of Environmental Economics & Management* (JEEM), and is currently on the editorial board of *Land Economics* and *JEEM*. Prof. Kolstad is the President of the Association of Environmental and Resource Economists (AERE). He has also served on AERE's Board of Directors. With over 100 publications, he has published in a variety of journals including the *American Economic Review*, *Journal of Political Economy*, *Review of Economic Studies*, *Review of Economics and Statistics*, *Land Economics* and *The Journal of Environmental Economics and Management* (JEEM). He received his Ph.D. from Stanford (1982), his M.A. from Rochester and his B.S. from Bates College.

Lave, Lester B.

Carnegie Mellon University

Lester B. Lave is University Professor and Higgins Professor of Economics at Carnegie Mellon University, with appointments in the Business School, Engineering School, and the Public policy School. Reed College granted him a B.A. and Harvard University a Ph.D. in economics. His research has focused on health, safety, and environmental issues, from the effect of air pollution on mortality to estimating the benefits and costs of automobile safety standards, risk analysis of carcinogenic chemicals, testing the carcinogenicity of chemicals, valuing natural resources and global climate change. As a Senior Fellow at the Brookings Institution from 1978-1982, he investigated a variety of regulatory and risk analysis issues. Lave has served as a consultant to a large number of federal and state agencies, as well as corporations. He was elected to the Institute of Medicine of the National Academy of Sciences, is a past president of the Society for Risk Analysis, and has served on many committees of the National Academy of sciences, AAAS, American Medical Association, and Office of Technology Assessment. Lave is the Director of the Carnegie Mellon University university-wide Green Design Initiative (Practical Pollution Prevention). This program is focused on using pollution prevention and sustainable development to boost economic development. The program has partnerships with leading companies to address these issues and design produces and processes for the environment. Although it is only four years old, the program has already received extensive support from IBM, the National Science Foundation, then Department of Energy, the Environmental Protection Agency, Texaco, the American Plastics Council, AT&T, Xerox, NCR, General Motors, Ford, Chrysler, Union Carbide, Alco, and other industrial Companies. Lave is also a principal in the Carnegie Mellon Global Change Center sponsored by NSF.

McConnell, Virginia

Resources for the Future

Virginia D. McConnell is currently Senior Fellow at Resources for the Future and Professor of Economics at the Baltimore Campus of the University of Maryland (UMBC). She is currently a member of several EPA Advisory Committees, including the EPA Clean Air Act Advisory Committee, Subcommittee on Mobile Sources Technical Review, and the Chesapeake Bay Program Advisory Committee, Air Subcommittee. She recently served on a National Academy of Sciences Panel, Board on Environmental Studies and Toxicology, to evaluate vehicle emission inspection programs. In the past, she worked with the President's Commission on Environmental Quality, and was awarded a Gilbert White Fellowship at Resources for the Future. She received a B.A. in Economics from Smith College in 1969 and Ph.D. in Economics from the University of Maryland in 1978. Her research interests are in the general area of air pollution and urban transportation, and more recently on the link between urban growth, transport and the environment. She has just completed work on a review article on 'Vehicles and the Environment' for the International Yearbook of Environmental and Resource Economics. Her published work has focused on evaluation of policies and policy design for the reduction of vehicle pollution; analysis of the productivity effects of environmental regulations; the effect of environmental regulations on firm location; and transport externalities and urban structure. In addition, she is currently studying the role of economic incentive policies for achieving goals of more efficient urban growth.

North, D. Warner

NorthWorks Inc

Dr. D. Warner North is president and principal scientist of NorthWorks, Inc., a consulting firm in Belmont, California, and consulting professor in the Department of Management Science and Engineering at Stanford University. Over the past thirty years Dr. North has carried out applications of decision analysis, risk analysis, and cost-benefit analysis for electric utilities in the US and Mexico, for the petroleum and chemical industries, and for US government agencies with responsibility for energy and environmental protection. He has served as a member and consultant to the Science Advisory Board of the US Environmental Protection Agency since 1978, and as a Presidentially appointed member of the US Nuclear Waste Technical Review Board (1989-1994). Dr. North is a co-author of many reports dealing with environmental risk for the National Research Council of the National Academy of Sciences, including "Risk Assessment in the Federal Government: Managing the Process"(1983), "Improving Risk Communication" (1989), "Science and Judgment in Risk Assessment" (1994), and "Understanding Risk: Informing Decisions in a Democratic Society"(1996). He is currently a member of the National Research Council Panel on Public Participation in Environmental Assessment and Decision Making. Dr. North was a member of the Board on Radioactive Waste Management of the National Research Council from 1995 until 1999. He was the chair for the steering and advisory committees for the International Workshop on the Disposition of High-Level Radioactive Waste, held November 4-5, 1999, and leading to the National Research Council report, "Disposition of High-Level Waste and Spent Nuclear Fuel: The Continuing Societal and Technical Challenges," published in June 2001. Dr. North is a past president (1991-92) of the international Society for Risk Analysis, a recipient of the Frank P. Ramsey Medal from the Decision Analysis Society in 1997 for lifetime contributions to the field of decision analysis, and the 1999 recipient of the Outstanding Risk Practitioner Award from the Society for Risk Analysis. Dr. North received his Ph.D. in operations research from Stanford University and his B.S. in physics from Yale University.

Ostro, Bart

California Office of Environmental Health Hazard Assessment (OEHHA)

Bart Ostro, Ph.D., is currently the Chief of the Air Pollution Epidemiology Unit, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. His primary responsibilities are to formulate the Agency's recommendations for state ambient air quality standards and to investigate the potential health effects of criteria air pollutants. His previous research on mortality and morbidity effects of air pollution, has contributed to the determination of federal and state air pollution standards for ozone and particulate matter. Dr. Ostro was also a co-author of the EPA regulatory impact analysis that was a basis for the federal ban of lead in gasoline. Dr. Ostro has served as a consultant with several federal and international institutions including the World Health Organization and the World Bank, and with several foreign governments including Mexico, Indonesia, Italy, the European Union, Thailand, and Chile. He currently serves on the National Academy of Sciences' Committee on Estimating the Health Risk Reduction Benefits of Proposed Air Pollution Regulations, and is on the Scientific Oversight Committee for ATHENA (Air Pollution Health Effects in Europe and North America) for the Health Effects Institute. Dr. Ostro received a Ph.D. in Economics from Brown University and a Certification in Environmental Epidemiology from the State of California. He has published over 60 articles on air pollution epidemiology and environmental economics in peer reviewed journals. His current research interests involve conducting epidemiologic studies on the mortality and morbidity effects of criteria air pollutants, examining the health effects of traffic, and quantifying the health benefits and associated uncertainties related to air pollution control.

Smith, V. Kerry

North Carolina State University

Dr. V. Kerry Smith is University Distinguished Professor and Director, Center for Environmental and Resource Economic Policy in the Department of Agricultural and Resource Economics at North Carolina State University, and he is a University Fellow in the Quality of the Environment Division of Resources for the Future. Since October 2000 he has been a member of the Advisory Council on Clean Air Compliance Analysis of the U.S. Environmental Protection Agency's Science Advisory Board, and in 2001 he was a member of the Arsenic Rule Benefits Review Panel of EPA's SAB. Dr. Smith received his AB in Economics from Rutgers University in 1966 and his Ph.D. in Economics there in 1970. He presented the Frederick V. Waugh Lecture for the American Agricultural Economics Association in 1992, and at the 2002 AAEA annual meeting he was named an association fellow, the association's most prestigious honor. In addition to the AAEA, he is a member of the American Economic Association, the Southern Economic Association, the Association of Environmental and Resource Economists, and numerous other professional associations. He has held editorial positions with the Journal of Environmental Economics and Management, Land Economics, Review of Economics and Statistics, and other professional journals. His research interests include non-market valuation of environmental resources, role of public information in promoting private risk mitigation, environmental policy and induced technical change, non-point source pollution and nutrient policy.

Wallsten, Thomas S.

University of Maryland

Dr. Thomas S. Wallsten is a professor in the Department of Psychology and in the Program in Cognitive Science and Neuroscience. He received his Ph.D. from the University of Pennsylvania in 1969, did a postdoctoral fellowship at the University of Michigan in 1970, and then joined the faculty at the University of North Carolina, Chapel Hill. He was professor of psychology and director of the Cognitive Science program when he left UNC-CH in 2000. Over the past years he was a visiting professor or visiting scholar at the University of Chicago, Duke University, Haifa University in Israel, and University of Oldenburg in Germany. He is a mathematical and cognitive psychologist with expertise in subjective probability, judgment, choice, decision behavior, and related areas of decision science and cognitive psychology. His current research focuses on subjective probability encoding and representation, communication of opinion, and human information processing under uncertainty. This research has been supported over the past 30 years primarily by grants from the National Science Foundation (NSF), with occasional additional support from other agencies. Current grants are from NSF and the Air Force Office of Scientific Research. Among his advisory roles, he was editor of the Journal of Mathematical Psychology from 1990-1994, associate editor of Psychometrika from 1984-1988, associate editor of the Journal of Experimental Psychology: Learning, Memory, and Cognition from 2000-2003, and on numerous editorial boards. He served in various advisory roles for NSF: During 1995-1997 on the grant review panel for Methodology, Measurement, and Statistics Program in the Division of Social, Behavioral, and Economic Research; in 2000 as a member of the Committee of Visitors for Social, Behavioral, and Economic Sciences Directorate; in 2003 as a member of the Committee of Visitors for the Behavioral and Cognitive Sciences Directorate; in 1998 on an ad hoc NSF-EPA grant review panel. In 2002, he was a grant review panel member for the Cognition and Student Learning Program of the Department of Education Office of Educational Research and Improvement.